HARRIS and ASSOCIATES, INC.

CONSULTING ENGINEERS AND LAND SURVEYORS

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LEHRER LANDFILL SITE Kaukauna, Wis.

Lake Mich. Dist.

LOCATION OF LANDFILL SITE: The Lehrer Landfill site as proposed herein has an operating area of approximately 20 acres and is located in Section 21 and Section 22, Township 21 North, Range 18 East, Town of Buchanan, Outagamie County, Wisconsin, adjacent to and immediately south of the city limits of Kaukauna and east of State Trunk Highway 55.

PRELIMINARY ENGINEERING DESIGN: The 20 acre landfill site will be divided into nine separate cells generally as shown on the preliminary drawings accompanying this report. Only one cell will be used for the placement of refuse at one time with the material from the excavation of the next cell being used for the daily and final cover of the operating cell. Cells numbered 1, 2 and 3 are approximately 180 feet by 480 feet (2 acres each) with a capacity of 72,000 to 75,000 cubic yards. Cells numbered 4,5,6,8 and 9 are 180 feet by 380 feet (1.6 acres each) with a capacity of 63,300 to 64,600 cubic yards. Cell number 7 is 160 feet by 350 feet (1.3 acre) with a capacity of 52,900 cubic yards. The total capacity of all cells is 592,800 cubic yards exclusive of volume required for 12 inches of topsoil and three feet of final clay cover. Ample cover material is available from the cells to supply the

required daily and final cover. A surplus of material will be available to provide additional cover to the previously filled areas, stockpile for future use after settlement or to remove from the site for disposal. All topsoil will be stripped and stockpiled for final placement on top of the three feet of final compacted clay cover.

Berms three to four feet high will be constructed around the perimeter of the site to minimize accumulation of surface water within the cells. The berms will direct the water around the site to natural water courses. Temporary berms will be constructed within the operating cells to accumulate and separate clear surface water from any leachate which might form during the day to day operation. The leachate will be collected near the base of the refuse and will be pumped into the compacted lift of solid waste. Each cell will be constructed so that the bottom will have a minimum of one percent slope towards one unfilled corner of the operating cell to facilitate drainage within the cell. Necessary observation wells will be installed through the waste to the low point of each cell to note any formation of leachate in the filled cells.

The existing clay screen separating the landfill site from the residential area to the north will be maintained during operation of the landfill site. The screen will serve as a visual, noise and litter control. Additional litter control will be provided for by the installation of permanent or temporary fences as required.

The final grades for the landfill site are shown on an accompanying drawing. The final grades included three feet of compacted clay as final cover and 12 inches of topsoil. The final grades have been established to facilitate surface runoff to the east and to the south and allow proper final grades to permit the site to be used for agricultural purposes after abandonment as a landfill site.

SOLID WASTES ANTICIPATED:

| SOURCE | TYPE OF WASTE | QUANTITY OF WASTE |
|--|---|-------------------|
| Town of Harrison | Residential & Farm | 8 cu. yds./day |
| Town of Woodville | Residential & Farm | 8 cu. yds./day |
| Kimberly-Clark, Kimberly Wisconsin Tissue,)- Menasha Neenah Paper, Neenah | Paper Mill Sludge) (from treatment) - plants - 50% to) 80% water) | 300 cu. yds./day |
| Paper Mill and Industrial | Miscellaneous Wastes | 700 cu. yds./day |
| City of Kaukauna | General Residential | 80 cu. yds./day |
| Village of Kimberly | General Residential | 70 cu. yds./day |
| Village of Combined Locks | General Residential | 60 cu. yds./day |
| | TOTAL = | 1226 cu. yds./day |
| | $\begin{array}{c} \text{COMPACTED} \\ (2\frac{1}{2} \text{ to } 1) \end{array} =$ | 490 cu. yds./day |

ANTICIPATED LIFE OF SITE:

| CELL NO. | REFUSE CAPACITY * | Contract of the last of the la | LIFE OF CELL | |
|----------|-------------------|--|--------------|--|
| | (cu. yds.) | days | years** | |
| 1. | 57,600 | 118 | 0.45 | |
| 2. | 58,880 | 120 | 0.46 | |
| 3. | 60,160 | 123 | 0.47 | |
| 4. | 50,640 | 103 | 0.40 | |
| 5 • | 50,640 | 103 | 0.40 | |
| 6. | 50,640 | 103 | 0.40 | |
| 7. | 42 , 320 | 86 | 0.33 | |
| 8. | 51,680 | 105 | 0.40 | |
| 9• | 51,680 | 105 | 0.40 | |
| | | | | |
| | TOTAL | = 966 | 3.71 | |

^{*} Assumed as 80% of capacity of cell.

^{**} Based on 260 operating days per year.